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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,367	12/19/2001	Hideya Saito	Q67396	7863
7590	03/09/2004		EXAMINER	
			HARLAN, ROBERT D	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 03/09/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/018,367	SAITO ET AL. <i>slb</i>	
	<b>Examiner</b>	<b>Art Unit</b>	
	Robert D. Harlan	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 11 December 2003.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1,5 and 8-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,5,8-16,18 and 19 is/are rejected.
- 7) Claim(s) 17 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____ .                                  |

**DETAILED ACTION**

1. The Amendment and IDS filed by Applicants on 12/11/03 have been entered.
2. Claims 2-4 and 6-7 have been canceled.

***Response to Amendment/Arguments***

3. Applicant's amendment and arguments filed on 12/11/03 have been fully considered and they are found unpersuasive.
4. The objection of claims 15-19 is withdrawn.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, the Applicant should

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refrain from using parenthetical language in the claims because such language tends to either broaden or narrow the scope of the claim beyond that which is intended by an otherwise definite expression. Parenthetical language is appropriate, however, in the specification. It is suggested that the Applicant delete the parenthetical language.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1, 5 and 8-14 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Mukaiyama et al., U.S. Patent No. 4,737,526 (hereinafter "Mukaiyama"). Mukaiyama discloses that concrete examples of crystalline fluorine containing polymers include vinylidene fluoride-hexafluoropropylene polymer composition. See Mukaiyama, col. 4, line 45 through col. 5, line 18. Mukaiyama further discloses that the crystalline fluorine containing polymers many contain ethylene. See Mukaiyama, col. 2, lines 62-68. The present invention differs from Mukaiyama, in that Mukaiyama does not specifically teach a terpolymer containing the monomer compositions of the present claims. The basic requirements of *prima facie* case of obvious are: (1) there must be some suggestion or motivation, either in the reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP 2143. "There are three possible sources for a motivation to combine references: the nature of the

problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." See In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). Although Mukaiyama does not disclose in the working fluorine containing terpolymer of the present invention, based on the specification as a whole a polymer chemist of ordinary skill in the art would be motivated to modify Mukaiyama by introducing ethylene to crystalline fluorine containing polymers. Such modification would be obvious because one would have a reasonable expectation of success that crystalline fluorine containing polymers as taught by Mukaiyama would be similarly useful and applicable to fluorine containing terpolymer. Therefore, claims 1, 5 and 8-14 are deemed as being unpatentable over Mukaiyama.

10. The Applicants argue Mukaiyama describes that ethylene can be added only in an amount in the range where favorable characteristics of the polymer are not greatly deteriorated and even if ethylene is added that amount cannot be at least 30% by wt. of the polymer. The Examiner finds no basis for this assertion in Mukaiyama.

11. Claims 15-16 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mukaiyama et al., U.S. Patent No. 4,737,526 (hereinafter "Mukaiyama") in view of Arcella et al., U.S. Patent No. 5,354,824 (hereinafter "Arcella"). Mukaiyama differs from Arcella in that Mukaiyama does not teach vulcanization techniques. Arcella teaches in analogous art vulcanized fluoroelastomeric polymers.

12. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

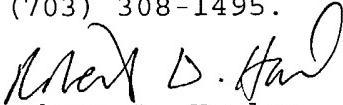
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expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert D. Harlan whose telephone number is (571) 273-1102. The examiner can normally be reached on Mon-Fri, 10 AM - 8 PM.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 273-1114. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

17. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.

  
Robert D. Harlan  
Primary Examiner  
Art Unit 1713

rdh  
March 2, 2004